1: Leitner L-3 (1866-93) 1893? AV3 Dard AV3
Burushe AV 7

V.—ANTHROPOLOGICAL OBSERVATIONS ON DARDS AND KAFIRS IN DR. LEITNER'S SERVICE.

(*Measurements in Centimetres.*)

000

1. ABDUL GHAFÛR, KAFIR OF KAMÔZ, *about 24 or 25 years of age.*

Height, 168·5; hair, black; eyes, hazel; colour of face, ruddy; colour of body, very light brown; narrow forehead; high instep; big boned; length round the forehead, biggest circumference of head, 53·75; protruding and big ears; square face; long nose, slightly aquiline; good regular teeth; small beard; slight moustache and eyebrows; distance between eyebrows, ordinary; good chest; fine hand; well-made nails. Weight, 10 st. 2¾ lbs.

B
142
141

2. KHUDAYÁR, YASHKUN NÁGYRI; *age* 24.*

Height, 182; colour of body, light yellow brown; round the head, 52·5; teeth, good, regular; nose, very slightly aquiline; little growth on upper lip; none on cheeks; long, straight, coarse black hair; eyes, hazel; ears, not so protruding; better-proportioned forehead; small hand; good instep; foot bigger, in proportion, than hand (not so good as other's hand); 80 pulse. Weight, 9 st. 10 lbs.

3. IBRAHÎM, RÔNO, NAGYRI; *age* 34.

Height, 162·3; round the head, 56·5; eyes, dark brown; big hands and feet; instep, good; colour, brown; good muscular foot; strong arms; hair, black; plentiful growth on upper lip; nose, aquiline; broad nostrils; full lips. Weight, 10 st. 12 lbs. (No. 10 on Drawing 1 of Appendix IV.)

4. MATAVALLI, YASHKUN OF HUNZA; *age* 30.*

Height, 164·0; very hairy, including hands; round the head, 54·0; head, pyramidal pointed; sinister countenance; very big hands and feet; thin lips; great moustache, coarser hair; more flat-soled than rest. Weight, 9 st. 8½ lbs. (*Full details in "Comparative Table."*)

5. SULTAN ALI, YASHKUN OF NAGYR; *age* 35.

Height, 165·25; round the head, 53·75; square head; retroussé, small nose; small mouth; red beard, plentiful; black hair; brown eyes; very big hands and feet, also instep. Weight, 9 st. 12 lbs. (No. 11 on Drawing 1 of Appendix IV.)

6. KHUDÂDAD OF NAGYR; *age* 30.

Height, 163·3; round the head, 54·4; stupid expression; big chest; ordinary hands and feet; low forehead; rising head; very muscular; eyes, brown; complexion, brown; thickish nose; very narrow forehead; underhung jaw; lots of hair. Weight, 9 st. 12 lbs. (No. 3 on Drawing 1 of Appendix IV.)

7. HATÁMU OF NAGYR; *age* 16.

Height, 162·1; round the head, 54·4 (broad head); low Grecian forehead; small nose; eyes, dark brown; light brown complexion; small hands and feet; regular, white teeth. Weight, 7 st. 13 lbs. (No. 4 of above Drawing.)

D
142
141

8. GHULAM MUHAMMAD, SHÎN OF GILGIT; *age* 38.*

Height, 161·0; round the head, 54; beard, prematurely grey; lost second incisor; small hands and feet; fair instep; brown eyes and complexion; nose, straight; ears all right. Weight, 8 st. 5 lbs.

* See also "Comparative Table" at the end of this Appendix, and the "Anthropological Photograph" facing this page. Read also page 1 of Appendix IV. "The Races of the Hindukush," opposite to Drawing 1 of that Appendix, on which look for Nos. 1, 6, and 9.

1: Leitner L-3 (1866-93) 1893? AV3 Dard AV3

Burusho AV7

FURTHER MEASUREMENTS OF THE ABOVE MEN BY THE SCHWARZ SYSTEM.

(*See explanations of these numbers further on, page 5.*)

B
D
141

Numbers by Schwarz.	1. Abdul-Ghafúr, Kamóz Káfir.	2. Khudayar Yashkun, Nagyri.	3. Ibrahim, Nagyri Róno.	4.* Mata-valli, Hunza Yashkun.	5. Sultan Ali, Yashkun, Nagyri.	6. Khuda-dád Nagyri.	7. Hatamu Nagyri.	8. Ghulam Muham-mad, Gilgiti Shin.
28	30	26·7·5	29·2	31·5	25·5	28·5	24·7	29·5
29	15	24·7·5	14	13·5	14	11·75	31·1	1?·5
30	14·5	13·5	14·5	13·6	13·7·5	14·2	12·7	14
31	10·2·5	8·7·5	9·5	9·6	8·7·5	9·2	8·1	9·1
32	3·7·5	3·5	3	3·7·5	3·25	3·3	3·8	3·9
34	3·9	4	4·6	4·1	3·6	3·6	3·4	3·5
35	5·5	4·7	4·7·5	5	4·1	5·5	4·5	4·8
36	14	11·2	11·7·5	11·25	11·2	11·2	11·1	10·2
37	18·7·5	20·2·5	20·6	20·8	19	20·75	19·2	18·5
39	46	44·7·5	48	44·5	44·5	48·6	41·5	39·6

* Matavalli, and a new man, Mir Abdullah of Gabriál (column F of subjoined Comparative Table), were also measured at Lahore on the 23rd March, 1886, with the following results that may be added to the above measurements or may be compared with those in the "Comparative Table," respectively columns A and F, (*Matavalli* and *Mir Abdullah*).

I. Head: Greatest breadth, A, 14·3—F, 14·1.
Greatest length from glabella to the back of the head, A, 18·8—F, 18·6.
Greatest length from root of nose to the back of the head, A, 19·6—F, 19·1.
Height of ear, A, 11·2—F, 11·9. Breadth of forehead, A, 10·6—F, 10·7.
Height of face (*a*), chin to edge of hair, A, 18·4—F, 19·1.
Height of face (*b*), root of nose to chin, A, 12·7—F, 12·1.
Middle face, root of nose to mouth, A, 8·1—F, 7·6.
Breadth of face, zygomatic arch, A, 13·8—F, 13·6.
Distance of the inner angles of eyes, A, 3·4—F, 3·4.
Distance of the outer angles of eyes, A, 9·2—F, 8·8.
Nose: Height, A, 5·1—F, 5·8; Length, A, 5·3—F, 5·9; Breadth, A, 3·9—F, 3·5.
Mouth: Length, A, 5·4—F, 5·3.
Ear: Height, A, 6·1—F, 6·3; distance from ear-hole to root of nose, A, 12·1—F, 12·1.
Horizontal circumference of head, A, 55—F, 53.

II. Body: Entire height, A, 165·7 centim.—F, 166.
Greatest extension of arms, A, 166·5—F, 165.
Height: chin, A, 142—F, 143. | Height to navel, A, 96·5—F, 99.
,, shoulder, A, 138—F, 138. | ,, middle finger, A, 73—F, 71·5.
,, elbows, A, 104—F, 105. | ,, patella, A, 45—F, 44·5.
,, wrist, A, 78—F, 80.
Height in sitting, to top of head (over the seat), A, 88—F, 85.
Breadth of shoulder, A, 43—F, 36.
Circumference of chest, A, 87—F, 81.
Hand: length middle finger, A, 8—F, 7·5; breadth, base of four fingers, A, 10—F, 7·5.
Foot: length, A, 26—F, 25·5; breadth, A, 11—F, 8·25.
Circumference of upper leg, A, 46—F, 42·5.
Circumference of calf, A, 34—F, 32.

1: Leitner L-3 (1866–93) 1893? AV3 Dard AV3
Bolushe AV7
B
D
141
142

COMPARATIVE TABLE OF ANTHI

(*The first five and the last*

	A MATAVALLI.*
Date and place of observation	2-6-81 : Simla
Age ; sex ; profession	32 yrs.; m.; peasant and warri
Caste, tribe, and tongue	Yashkun ; Khajuná ; Burishl
Religion and birthplace	Shiah; (probably Mulái) Hun
Thin, medium, or stout	medium
Weight‡	9 st. 8½ lb.
Colours § skin, exposed parts	53 (red brown)
Colours § „ covered parts	21 (light red brown)
Colours § hair	48 (black)
Colours § beard	41 (black)
Colours § eyes	3 (light brown)
Hair : straight, wavy, curly, frizzled, or woolly	straight
Beard : thick (abundant), scanty, or none	thick, long and stiff
Skin : smooth, a little, or very hairy	very hairy
Shape of profile of nose (p. 111) No.	2 (nearly quite straight)
Lips : thick, medium, or thin	medium (arched)
„ straight, or turned outwards	straight
Teeth : large, medium, or small	small
„ incisors, straight (vertical), slanting, or very slanting	straight (incisors wide apart)
The set of teeth : very good, good, medium, bad, or very bad	good (but dirty)
Skull Diameters : antero-posterior, maximum	195 millim.
Skull „ „ inial	192 „
Skull „ transverse, maximum	144 „
Skull „ auriculo-vertical (fr. m.)	116 „
Skull Curves : inio-frontal	345 „
Skull „ horizontal	540 „
Skull „ transverse sub-auricular	330 „
Skull facial angle (Camper)	81 „
From point of chin to edge of hair	185 „
„ ophryon to alveolar point	95 „
Breadth between zygomata	139 „
Length of nose	48 „
Breadth of nose	31 „
From ophryon to root of nose	12 „
Width between inner angle of eyes	—
„ cheekbones	94 „
Height (standing)	164 centim.
„ (sitting)	126 „
Greatest extension of arms	162 „
„ „ of span	20 „
Total length of foot	25 „
Length of ditto, ante-malleolar	20 „
Forehead	high; slightly receding
Frontal bone (bord sourcillier)	very marked
Intra-ocular distance	scarcely any
Eyebrows	bushy, crossing, forming but one lir
Eyes	straight
Cheeks	little salient
Zygomatic arch	very salient
Chin	oval
Ears	medium, little salient (round, small
Mouth	
Neck	strong
Torso	strong
Extremities	very small

* For additional measurements, see page 2. He is No. 6 of Drawing 1 of Appendix IV.

† I was obliged to get myself measured in order to encourage the Dards and Kafirs to allow themse those of dolichocephalic Matavalli 73·84, mesocephalic Khudáyár 78·7, mesocephalic Ghulám Muhamma may also be compared with Abdul Ghafúr's, 537·5; Khudayár's, 52·5; Ibrahim's, 56·5; Matavalli's, 5 details regarding three of them, and adds the measurements of three other Dards (Ghulám, Abdullah, an the amplitude of the frontal region of the Darreyli herdsman, on the drawing opposite to page 76 of the t

‡ There were also weighed the Kamóci Kafir Abdulghafúr, age 23 or 24, weighing 10 st. 2½lb; and

§ The numbers refer to the tables published by Broca, Topinard and Hamy.

[facing p. 198 : a]

1: Leitner L-3 (1866-93) 1893? AV3 Dard AV3 Gurusho AV7

ROPOLOGICAL OBSERVATIONS ON SOME OF THE DARDS

are described by the French system; the sixth by the German system, put into millimetres and

141
142

	B KHUDÁYÁR	C GHULAM MUHAMMAD.	D GHULÁM.	
	... ... 2-6-81 : Simla	.. 2-6-81 : Simla ...	... ——— Simla ...	...
	... 21 yrs.; m.; student ...	40 yrs.; m.; agriculturist	... 18 yrs.; m. ...	40
	Yashkun; Khajuná; Burishki	... Shiná	Shin (Kashmir subject)	Shi
	... ... Shiah; Nagyr	... Shiah; Gilgit ...	Sunni; Gurukôt near Astor	Sun
	... ... thin	... medium ...	... ...	...
	... ... 9 st. 10 lb.	... 8 st. 5 lb. ...	... ...	...
	... . 54	... ... 38	... ... 52	...
	... ... 47	... ... 38	... ... 53	...
	... ... 42	... ... grey	... ... 48	...
	... ... 43	... ... grey	... ... 48	...
	... ... 3	... ... 2	... ... 1	...
	... ... curly	.. ... curly	... ... curly	...
	... ... scanty	... very thick ...	... ... thick	...
	... ... a little hairy	... a little hairy ...	... very hairy ...	...
	... ... 5	... ... 5	... ... 5	5
	... ... medium	... medium ...	... ... thin	...
	... ... straight	... straight ...	... .. straight	I
	... ... medium	... ... large	... ... small	...
	... . straight	... straight ...	... ... straight	...
	... ... very good	... ... good	... very good ...	...
	... ... 183	... ... 186	... ... 187	...
	... ... 180	... ... 187	... ... 185	...
	... ... 144	... ... 144	... ... 144	...
	... ... 110	... ... 123	... ... 110	...
	... ... 315	... ... 325	... ... 335	...
	... ... 525	... ... 540	... ... 540	...
	... ... 315	... ... 320	... ... 335	...
	... ...	... ...	... ...	...
	... ...	... ...	... ...	...
	... ...	... ...	... ...	...
	.. ..	... ...	... ...	...
	... ...	... ...	... ...	...
	.. ..	.. ..	... .	...
	... ...	... ...	... ...	...
	... ...	... ...	... ...	...
	... ...	... ...	... ...	...
	... ... 182	... ... 161	... ... 159	...
	... ... 131	... ... 124	... ... 125	...
	... . 180	.. ... 174	... ... 167	...
	... ... 16½	... ... 16	... ... 20	...
	... ... 26	... ... 25	... ... 24½	...
	... ... 21½	... ... 19	... ... 20	...
	... high; slightly retreating ...	medium; straight	medium; straight	...
	... ... well developed	much developed	... scarcely any ...	...
	... ... deep	... very deep ...	... not deep ...	...
	... ... very bushy	arched, bushy, crossed	arched, bushy, crossed	z
	.. .. straight	... straight ...	... ... straight	.
	... ... little salient	... salient ...	... little salient ...	.
	... ... salient	... salient ...	... much developed ...	.
	... ... oval	... ... oval	.. .. oval	.
	... ...	... ...	... ...	.
	... ...	... medium ...	... ... small	.
	... ... proportioned	.. proportioned ...	well proportioned	.
	... ... square	... proportioned ...	... well made ..	.
	... ... fine	... .. fine	... medium ...	.

** Mir Abdullah is No. 7 of Drawing 1, and No. 2 of Drawing 2, of A
lves to be subjected to a process so unintelligible to them. At the same time, their comparison with an European
d 77·4, mesocephalic Ghulám 77, the exquisitely dolichocephalic Abdullah 72·53 and dolichocephalic Mir Abdullah
4; Sultan Ali's, 53·75; Khudádad's and Hatamu's, 54·4; and Ghulam Mahammad's, 54; which give the circumf
) Mir Abdullah), so that in all, including Jamshéd, the measurements of twelve Dards or Kafirs have been preserve
est of this Volume.
the following Nagyris: Ibrahim Khoo, 34 years old, 10 st. 12 lb.; Sultán Ali, 35 years old, 9 st. 12 lb.; and the bo
The following extra measurements were given:—Height to auricular meatus, 158; to acromion,

[facing p. 198: b]

1: Leitner L-3 (1866-93) 1893? AV3 Dard AV3

S IN DR. LEITNER'S SERVICE. Burush. AV7

centimetres respectively.)

141
142

E ABDULLAH.	F MIR ABDULLAH. **	G † DR. LEITNER.
.. 2-6-81 : Simla ...	... 23-3-86 : Lahore ...	2-6-81 : Simla
) yrs. ; m. ; agriculturist	... 30 yrs. ; m. ; Jurist ...	... 40 yrs.
hin ; (Kashmir subject)	... Dard ; Gabriál ...	
inni ; Gurukôt near Astor	... ... Sunni	
.. ...medium	... . . medium	stout
.. ..	... ...	... 14 st. 4 lb.
.. ... 37	forehead & cheeks, reddish-brown	... 25 (very fair)
.. ... 37	lips, pink ; covered parts, lighter	... 24 (very fair)
.. ... 48	... ... black	... ... fair
.. ... 48	... ... red-brown	fair ; slightly red
.. ... 1	*iris* : dark brown ; *ball* : white, bluish, injected	... 14 (blue)
.. ... curly	... black, short, curly ...	... ... curly
.. very thick ...	straight ; woolly ; brown-reddish	... abundant
.. very hairy ...	hairy on breast, little on arms	... very hairy
5, very high nostrils	... ... convex	 5
.. medium ...	... ... thin, arched	... medium
little turned outward	... ... thin, straight	... thin, straight
.. ... small	... ... small	... medium
.. straight ...	... ... straight	... vertical
.. very bad ...	... transparent, very white ...	... medium
.. ... 193	... ... 191	 201
.. ... 183	... ... 186	 200
.. ... 140	... . 141	 163
.. ... 114	... ... 119	 126
.. ... 345	... ...	 340
.. ... 520	... ... 530	 600
.. ... 320	... ...	 330
.. ... 81	... ...	 73
.. ... 177	... ... 191	 193
.. ... 75	... .	 94
.. ... 132	... ... 136	 133
.. ... 52	... ... 59	 54
.. ... 39	... . 35	 33
.. ... 20	... ...	 16
.. ... 38	... ... 34	 35
.. ... 108	... ...	 103
.. ... 152	... ... 166	 171
.. ... 124	... .	 126
.. ... 165	... ... 165	 182
.. ... 19	... ...	 19
.. ... 23½	... ... 25·3	 27
.. ... 19½	... ...	 22
.. high ; straight ...	high ; breadth of forehead 107	high ; slightly receding
.. scarcely any ...	... ... pronounced	very pronounced
.. not deep ...	... deep ; distance 3·4 ...	... very small
urched, bushy, crossed	... standing far apart, thin ...	... arched
.. straight ...	... ... straight	... straight
.. little salient ...	... ... very salient	... ...salient
.. much developed ...	... ... salient	... not salient
.. ... oval	... ...oval	... square
.. medium flat ...	... long ; height of ear 6·3 ...	... medium
.. ... thick	... length of mouth 5·3 ...	... medium
.. ... strong	. ... proportioned	... strong
.. slim (svelte) ...	... ... proportioned	... vigorous
.. medium ...	... ... small	... medium ‖

ppendix IV. For additional measurements, see page 2.
may have some interest. His brachycephalic Cranial Index 81·44 may be compared with 73·82, which give an average of 75·55. The European's circumference of head, 60 centimetres, erence of the heads of the eight Dards and Kafirs on the first page. This Table supplies further l. Those taken by Dr. Neill have been lost. Notice also the fine formation of the head and

) Hatamu, 16 years old, and weighing 7 st. 13 lb.
142 ; to epicondyle, 106 ; styloid apophysis of the radius, 82 ; to the end of middle finger, 64.

[facing p. 198: c]